20th Congress, 1st Session. [Doc. No. 125.] Ho. of Reps. War Dept.

NATIONAL ROAD—WASHINGTON TO NEW ORLEANS.

LETTER

FROM THE

SECRETARY OF WAR,

TRANSMITTING

A REPORT OF THE CHIEF ENGINEER,

ACCOMPANIED BY

A Report upon the Reconnoissance of a Route, across the Cumberland Mountain, of the National Road

CONTEMPLATED FROM

WASHINGTON TO NEW ORLEANS,

AND A MAP OF THE COUNTRY BETWEEN THOSE TWO CITIES.

JANUARY 30, 1828.

Read, and laid upon the table.

FEBRUARY 7, 1828.

Referred to the Committee of the Whole House to which is committed the *bill* [No. 44] *to regulate the laying out and making a National Road from the City of Washington, in the District of Columbia, to New Orleans, in the State of Louisiana.*

WASHINGTON:

PRINTED BY GALES & SEATON.

1828.

WAR DEPARTMENT,
January 30, 1828.

SIR: I have the honor to transmit, herewith, a report of the Chief Engineer of this date, accompanied by a report upon the reconnoissance of a route, across the Cumberland Mountains, of the National Road contemplated from Washington to New Orleans, and a map of the country between these two cities, in compliance with so much of the resolution of the House of Representatives, of the 16th instant, as relates to that subject.

This report and map being originals, it is respectfully requested that they may be returned to this Department, after having served the purpose for which they are intended.

I have the honor to be, sir,
Very respectfully,
Your obedient servant,
JAMES BARBOUR.

Hon. ANDREW STEVENSON,
Speaker of the House of Representatives.

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ENGINEER DEPARTMENT,

January 30, 1828.

SIR: In obedience to your directions to furnish the information called for by a resolution of the House of Representatives, of the 16th instant, directing "the Secretary of War to communicate to the House a report of the examination, made by the United States' Engineers, of the Muscle Shoals, in Tennessee river, with a view to the practicability of removing the obstructions to the navigation thereof, or of the construction of a canal around the same; and, also, a report of the examination, by the Engineers, of a branch af the western route of a National road from Washington to New Orleans, through West Tennessee, North Alabama, and the States of Mississippi and Louisiana;" I have the honor to present, herewith, the report upon the reconnoissance of a route across the Cumberland Mountain, of the National road contemplated from Washington to New Orleans, with a map of the country between these two cities, exhibiting, not only the route under consideration, but, also, those examined in 1825, and reported upon in April, 1826. The report on the examination of the Muscle Shoals, in Tennessee river, is in progress, and, as soon as completed and received by this Department, will be submitted as directed.

Respectfully submitted.

ALEX. MACOMB,

Maj. Gen. Chief Eng.

Hon. JAMES BARBOUR, *Secretary of War.*

REPORT

Upon the Reconnoissance of a Route across the Cumberland Mountains, of the National Road contemplated from Washington City to New Orleans.

WASHINGTON CITY,

January 26, 1828.

In conformity with instructions under date of the 28th of February, 1825, the Board of Internal Improvement reported, in April, 1826, on three distinct routes which might be followed by a National Road, having for its object to establish a communication between Washington City and New Orleans. The present report, relating to the same object, contains, agreeably to instructions dated March 12th, 1827, the results of the reconnoissance of a fourth route destin-

ed also to establish the contemplated communication between Washington and New Orleans.

This fourth route may be considered as a deviation of the western route examined in 1825, and crossing the Blue Ridge at Rockfish Gap, or some other convenient pass. It will, indeed, coincide with this western route on a distance of 491 miles; that is to say, from Washington to Knoxville; but, from this place to New Orleans, it will, instead of continuing through East Tennessee, cross the Cumberland Mountains, and strike the Mississippi at Baton Rouge, after having passed by Huntsville, (Alabama,) Columbus and Jackson, (Mississippi.) From Baton Rouge, (Louisiana,) to New Orleans, this route will run along the left side of the Missisippi, and follow the Levee road.

We shall observe that the roads and by-roads travelled by the Board, are those which seemed to be nearer to the direction which was to be examined: they were followed only with a view to keep, as much as practicable, within the route under consideration. Therefore, they are not presented in this report as sections through which a road ought to be finally and strictly located. The reconnoissance of those roads and by-roads has been made only to furnish the general informations upon which a comparison could be made between the several routes, which compete to fulfil the contemplated national object. The final location of a road, in the direction of the route selected by Government, ought to be the result of previous accurate surveys, and minute investigations of the ground.

In order to condense and render more intelligible the details and facts relative to the route now under consideration, they have been arranged and classed by means of an itinerary table annexed to the present report. This order, which has also been used in the report relating to the three routes examined in 1825, besides facilitating the comparison of one route with another, will present the facts in a more comprehensive form, and relieve the text from their tedious description.

This itinerary table exhibits, under separate heads: 1st. The successive stations travelled each day: 2d. The general course of the section of road travelled each day: 3d. The geological formation: 4th. The face of the country: 5th, The nature of the soil: 6th. The kind of the natural products: 7th. The nature of the growth of timber: 8th. The water courses crossed by the road: 9th. The length of bridges they will require: 10th. The length of causeways across the valleys, and of those across swamps and low grounds: 11th. The graduation of the roads travelled, showing how many miles at 2° and under; how many at 3° and above 2°; how many at 4° and above 3°: 12th. The designation of the States and counties crossed by the roads travelled by the Board: 13th. The white, colored, and whole population of each county: 14th. The successive distances from one station to another; that from Washington City to each station.

We shall make, upon these heads, some observations as to the objects to which they have reference. By general course, we mean that

followed by the road in the main part of its whole distance, abstractedly of the portions of it which deviate from the general direction. The geological formation is given, in order to show the nature of the materials of which the road may be constructed; and these materials are indicated under the same heads. When the route passes from one formation to another, it has not been deemed necessary to fix upon the exact line where one formation ceases and another commences. This degree of precision would have been useless, and would have led us into researches foreign to our object. The face of the country is given only to present a general idea of the facilities or difficulties which may occur in graduating the road. The nature of the soil will serve to anticipate the amount of population which the country might hereafter support. The length of the bridges will indicate the width of the water courses crossed by the road, and the length of the causeways, the breadth of their respective valleys. It must be observed that the bridges and causeways referred to in the tables, are not, identically, those which will be established in consequence of further and accurate surveys: nevertheless, as the final road will cross, generally, the same streams and the same valleys as those of the roads followed by the Board, we think that there will not be a great difference between the total length of bridges and causeways on these roads, and that which ulterior surveys will determine. It must also be observed, that no mention is made of those sections where it will become necessary to have the road thrown up, either to be out of reach of accidental inundations caused by rain, or to keep above the level of ground of a sinking and damp nature. The graduation presented by the table belongs to the roads followed by the Board. The population is taken from the census of 1820. The States and counties therein designated, are those crossed by the roads travelled by the Board. The distances have been computed from the best informations which could be procured.

The map annexed to this report, is the engraved map which accompanied the printed report of April, 1826, and which had been reduced from the large map joined to the manuscript report. This engraved map exhibits the four routes examined from Washington to New Orleans. Its scale is 50 miles to one inch and a half.

The western route, under consideration, on leaving Georgetown, (District of Columbia) is carried in the direction of Rockfish Gap—where (or at some other convenient place) it would cross the Blue Ridge; thence, to the sources of the Shenandoah. It proceeds, afterwards, to the head-waters of the Holston, intersecting, in its course, successively, the head branches of James, Roanoke, and Great Kenhawa rivers. It follows the valley of the Holston, and crosses, at Kingston, Clinch river, one of the main upper branches of the Tennessee. Thence, it winds through the Cumberland mountains, reaches again the Tennessee, at the head of the Muscle Shoals; and, from this point, it takes its course to Columbus, where it crosses Tombeckbee river. From Columbus to Baton Rouge, the route runs on the summit ground which divides the streams emptying into the Gulf, from those which

are tributary to the Mississippi; and, from Baton Rouge to New Orleans, it follows the Levee road, along the left side of the Mississippi.

From Washington to New Orleans, the route passes, in succession, on the following geological formations:

From Washington to Rockfish Gap, -	Primitive,	144 miles.
Rockfish Gap to Seven Miles ford,	Transition,	192
Seven Miles ford to 12 miles further than Russelsville, - -	Secondary,	454
12 miles further than Russelsville to Harris, - - -	Primitive,	183½
Harris to Jackson, - -	Secondary,	34½
Jackson to Baton Rouge, - -	Alluvial,	162½
Baton Rouge to New Orleans, -	Fluvial deposite,	112
Total distance - - -		1,282½ miles

From these geological features, it may be inferred that, from Washington city to Harris, (Mississippi) that is to say, on a distance of about 973½ miles, the country, along the direction of the route, will afford materials to make a substantial road; and that, on the 309 remaining miles, from Harris to New Orleans, the country is deprived, generally, of any kind of rock. The itinerary table, here annexed, indicates the nature of the materials found along each section of the route.

This table, as also the foregoing statement, shows that the route under consideration passes, in succession, over all kinds of formations; and therefore traverses a greater variety of soils than the eastern and middle routes, examined in 1825. On the 144 first miles, the soil is composed of clay and sand, but the former predominates. Oak and chesnut are the general growth of timber. On the succeeding 192 miles, the soil is formed of strong and compact limestone clay; oak and hickory predominate. The soil, on the 454 following miles, is chiefly a rich limestone clay, of various colors, red, yellow, white, and generally covered with a very rich mould. Some tracts, however, are sandy; oak, hickory, and maple, are the main growth of trees. On the 183½ succeeding miles, the soil is composed of sand and clay, the former predominating; pine and oak, the general growth of timber. The soil, on the 34½ next miles, is chiefly limestone clay; oak is the main growth of trees. On the 162½ following miles, the soil is sand and clay—the sandy tracts more extensive than those of clay; pine and oak are the chief growth of trees, but pine predominates. Finally, the soil on the 112 last miles, is the rich flat bottom of the Mississippi, covered with sugar and cotton plantations; red oak, live oak, cypress, are the general growth of timber.

The face of the country, in the direction of the route, opposes no great obstacles to the trace of a road with a proper graduation; and, with regard to this object, the examination affords the following approximate results: three-sixths of the whole distance at two degrees

	Approximatively. Extent throughout which materials can generally be procured.	*Approximatively.* Extent throughout which there will be a scarcity of materials.	Quality of soils traversed by the route. General growth of timber.	Total length of Bridges.	Total length of causeways.	Gradation. 2°	Gradation. 3°	Gradation. 4°	Population. White.	Population. Colored.	Population. Tot	Distance from Washington to N. Orleans, from the summary of reconnoissance.
Eastern Route.	240 miles	896 miles	Rich in the bottoms of the valleys, but sandy in the intermediate parts. The predominating growth is pine.	Miles. Yds. 6 626	Miles. Yds. 35 586	Miles. 735½	Miles. 292¾	Miles. 140¾	202,430	210,284	412,714	1,169 miles 1,136 miles
									Probable distance - -			
									Of which $\frac{5}{8}$ at 2° and under; $\frac{3}{8}$ at 3° and above 2°.			
Middle Route.	752 miles	354 miles	From Washington to the Chatahouchie river, rich in the valleys, clayey in the intermediate parts. The growth is oak. From the Chatahouchie to New Orleans, rich in the valleys, but sandy in the intermediate parts. The growth is principally pine.	5 1,473	39 356	714	324	166	262,335	164,632	426,967	1,204 miles 1,106 miles
									Probable distance - -			
									Of which $\frac{5}{8}$ at 2°, and under; $\frac{3}{8}$ at 3°, and under 2°.			
Western Route through East Tennessee.	782 miles	358 miles	From Washington to the Cahawba river, rich in the valleys, clayey and good quality in the intermediate parts. The oak and hickory predominate. From Cahawba to New Orleans, the valleys and prairies productive; the parts intermediary, unproductive. Pine and oak general growth.	3 953	24 1,211	662	339	146½	204,295	107,899	312,194	1,147½ mls. 1,140 miles
									Probable distance - -			
									Of which $\frac{5}{8}$ at 2°, and under; and $\frac{3}{8}$ at 3°, and above 2°.			
Western Route through West Tennessee.	973 miles	309 miles	144 first miles, clay and sand; oak and hickory. 646 following, rich limestone clay; oak and hickory. 183½ do. sand and clay; pine and oak. 34½ do. limestone clay; oak. 162½ do. sand and clay; pine and oak. 112 last miles, rich sugar land; red and live oak and cypress.	4 1,421	17 1,086	683½	373½	225½	250,739	148,656	399,395	1,282½ mls. 1,282 miles
									Probable distance - -			
									Of which $\frac{5}{8}$ at 2°, and under; $\frac{3}{8}$ at 3°, and above 2°.			

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and under; two-sixths at three degrees, and above two degrees; one-sixth at four degrees, and above three degrees. It is true, that, in locating a road in this direction, Spencer's Hill, (Bledsoe county, Tennessee,) and the Little and big Bear creeks, (Franklin county, Alabama,) will require an increase of distance, in order to obtain an easy graduation; but, by means of accurate surveys and minute investigations of the ground, these main obstacles will be overcome. The remark A, placed at the end of the itinerary table, shows that the crossing of Spencer's Hill might be either improved or partially avoided. However, taking into consideration these obstacles, and the crossing, in succession, of the Blue Ridge, Chesnut's Hill, and the Cumberland Mountains, it is not probable that, with a distance of less than 1,282 miles, we could obtain a graduation of five-eighths at two degrees and under; and three-eighths at three degrees, and above two degrees. Therefore, we assume 1,282 miles as the probable distance of a road located in the direction of the route examined, and receiving the graduation just pointed out.

The summary results of the part of the itinerary table, which are susceptible of being expressed by figures, are as follows:

Total length of Bridges.	Total length of Causeways.	GRADUATION.			POPULATION.			Distance from Washing to New Orleans.
		2°	3°	4°	White.	Colored	Total.	
Miles. Yds.	Miles. Yds.	Miles.	Miles.	Miles.				Miles.
4 1,421	17 1,086	683½	373½	225½	250,739	148,656	399,395	1,282½

In order to facilitate the comparison between the route now under consideration, and those examined in 1825, we present here, under the form of a table, the general results which the reconnoissance affords in relation to each of the four routes; and, from these results, we draw the following conclusions:

Materials.—The Middle and the Western routes through East Tennessee, are about equally provided with materials; but the Western route, through West Tennessee, is better provided than either. The Eastern route has the inferiority as to materials.

Soil.—The two Western routes may be placed on the same footing as to soil. However, if the last one hundred and twelve miles of rich flat bottom and sugar land, are taken into consideratisn, the route through West Tennessee deserves the preference. The Middle route is inferior to the Western route through East Tennessee, but has the advantage over the Eastern.

Bridges.—The Western routes will require less bridging than the Middle and Eastern routes: these two latter about the same.

Causeways.—The Western route, through West Tennessee, has a decided advantage over the others. The Middle and Eastern routes are greatly inferior to the Western route through East Tennessee.

Graduation.—It will be obtained with less expense for the Eastern than for the three other routes; but it will become more expensive for the Western route through West Tennessee, than for the Western route through East Tennessee: the Middle has the advantage over the two Western routes.

Population.—The Eastern, Middle, and Western routes through West Tennessee, do not differ much as to the amount of population, which is about one-fourth greater than on the Western route through East Tennessee. The ratio between the white and colored population is, for each route, about as follows:

Eastern route - - - - - -	1 to 1
Middle route - - - - - -	3 to 2
Western route, (East Tennessee) - -	2 to 1
Western route, (West Tennessee) - -	5 to 3

Distance.—The length of the road, in the direction of the Middle route, will be less than on the other routes; and, with regard to time, and under the same graduation, we are inclined to give also the preference to the Middle route.

Expense.—The expense of solid and durable materials will be about the same, for a substantial construction, for the Middle and two Western routes, taking into consideration the greater length of the Western route, through West Tennessee. As to the Eastern, the four-fifths of its length being deprived of solid materials, its construction, on that distance, could not be of so permanent a nature.

For bridging, the expense will be less for the two Western routes, than for the Middle and Eastern; these two latter, about the same.

For causeways, the expense will be much less for the Western route, through West Tennessee, than for the three other routes; and less for the Western route through East Tennessee, than for the Middle and Eastern routes.

To obtain for the four routes the same graduation, the expense will be less upon the Eastern, than upon the other routes, and less upon the Middle and Western route through East Tennessee, than upon the other Western route.

Respecting the price of labor, it will generally be the same upon the Middle and Western directions; though, however, less for some sections along the latter, it will be higher along the Eastern.

Such are the general and comparative results, which, after due investigation, appear to us applicable to the four routes examined. It remains now, agreeably to our instructions, to submit the considerations of internal policy, which, in our humble opinion, seem to belong to these several routes; and to perform this part of our task duly, in reference to the route under examination, we are in the necessity of repeating much of what has been said on the subject, in the report of 1826, here-above mentioned.

Commercial Considerations.

In relation to external commerce, it appears to us, that a road from Washington City to New Orleans, will not afford, as to transportation, advantages of material importance; for the road will cross, ge-

nerally, all the main water courses, through which are effected the operations of external commerce.

However, it must be remarked, that, whilst the Eastern route crosses the water courses, at the head of sloop navigation, the Middle route intersects them at the head of boat navigation; therefore, in either direction, a road would accommodate the districts through which it passes, for the transportation of their products to the navigable streams. Under this local point of view, the external commerce will become benefitted to a certain extent, by the construction of the road in either of these directions.

Though the Western routes do not enjoy, to the same extent, a similar advantage, yet their location between the Shenandoah, and the Tennessee, will facilitate the transportation of products towards either of these rivers. They will also intersect the roads made, or contemplated, to join the heads of navigation of the Great Kenhawa with those of the Roanoke, James River, and Shenandoah. Respecting the Western route through West Tennessee, we must observe, that, by intersecting the Tennessee at the head of the Muscle Shoals, and touching the Mississippi at Baton Rouge, it will accommodate the districts in the vicinity of these points, by facilitating the transportation of products, to those navigable streams. It must be remarked, that the crossing point on the Tennessee, will become the head of a canal, destined to avoid the obstructions opposed to the navigation, by the Muscle and Colbert's shoals.

As to internal commerce, a road in either direction will greatly promote the exchange of agricultural and mineral products; but on the Middle and both Western routes, the diversity of these products being greater than on the Eastern, a road in the direction of the former, will contribute more than in the direction of the latter, to the development of internal commerce and industry. Besides, both Western routes, and, more especially, that through West Tennessee, will greatly facilitate the commercial intercourse between the States of Alabama, Tennessee, Maryland, and Pennsylvania, at the season in which the river Ohio is not navigable.

The Eastern route connects, generally, from Alexandria to New-Orleans, the most inland ports of exportation and importation, of the Southern States; we mean the points where ends the navigation by sloops, and commences the ascending navigation by boats: therefore, under the point of view of commercial relations, the road in the direction of the Eastern route, enjoys the exclusive advantage of facilitating the correspondence between our inland importing and exporting marts, from Portland to New Orleans.

Accommodation of the Population.

In the details presented by the itinerary tables, annexed to this report, and to that of 1826, mention is made of the population, only for the counties traversed by each of the routes examined. We must now take into view the population of the States, which will be directly accommodated.

The States traversed, and directly accommodated by the Eastern and Middle routes, will be

Virginia;	the population of which is	1,065,366	census of 1820.
North Carolina,	do.	638.829	do.
South Carolina,	do.	502,741	do.
Georgia,	do.	340,989	do.
Alabama,	do.	127,901	do.
		2,675.826	

The States directly accommodated by the Western route, through East Tennessee, will be

Virginia,	1,065,366
Tennessee,	422,813
Alabama,	127,901
	1,616,080

It must be remarked that this route is central, with respect to Virginia and Alabama, but not to Tennessee.

The States directly accommodated by the Western route, through West Tennessee, will be

Virginia,	1,065,366
Tennessee,	422,813
Alabama,	127,901
Mississippi,	75,448
Louisiana,	153,407
	1,844,935

We must observe, that, Alabama and Louisiana excepted, all these States are traversed through the middle by this Western route; which, besides, will branch at Russelville, (Alabama,) with the contemplated road, through the States of Ohio, Kentucky, and Tennessee, from Zanesville, (Ohio,) to Florence, Tuscumbia, and Russelville.

From the above statements, we may infer that the Eastern and Middle routes, will, in the present state of things, accommodate a greater population, than either of the Western routes.

But, if we are permitted to anticipate the rapid increase of population, which a variety of rich soils seems to ensure to several extensive districts of country, followed by the Western routes, we may perhaps hazard the conclusion, that the advantage now enjoyed by the Eastern and Middle routes, will, in time, gradually diminish.

Political Considerations.

The political advantages to be derived from a national road, may be reduced to two: to render the population more compact, by shortening, as to time and distance, the means of communication; to facilitate the operations of Government.

Taking into view the nature of our institutions, and the vast extent of territory over which our increasing population is constantly spreading, no country calls more than our own, for numerous and easy communications. Upon them depend, not only the facilities for commercial intercourse, but, also, the preservation, improvement, and equal diffusion of civilization.

Our political system of confederate sovereignties, obviates to the difficulties and dangers, which would arise out of a single National Government; but any thing calculated to facilitate the intercourse between the several States, may be considered as the complement of the system. If common interest and reciprocal advantages, are the strongest bonds of union, between the individual members of a Confederation, yet natural obstacles and distances, might, in progress of time, give rise to ideas of national individuality. Roads and Canals are strong preventives against such a danger; thus, do we see, that they are amongst the most effectual means, to which wise and provident Governments have resorted, not only to render their population more efficient, but, also, to win the affection of those which either treaties or conquests had placed under their laws.

It is to be observed, that, as we progress towards the South, our population becomes less dense and compact; and, at this day, a vast extent of territory, thinly inhabited, separates the Southern States from those upon the Gulf of Mexico. A road from Washington City to New Orleans, in either of the directions pointed out, would partly remedy that state of things, by promoting, along its course, numerous and valuable settlements, and by receiving lateral embranchments.

As to a more effectual connexion between the sections of country which are separated by natural obstacles, both Western routes enjoy the great advantage, not only to cross the Alleghany, but, also, to effect this passage through the middle of Virginia; the territory of which, lying on both sides of the chain, is a common link between the Middle, Western, and Southern States.

Under the point of view of the administration of Government, the Eastern route possesses the great advantage of passing through the centres of legislative and executive transactions of the Southern States. It will, therefore, in ordinary times, facilitate the transmission of information between the General and State Governments; and, in time of emergency, it will aid in the concert of designs and co-operation, necessary to meet the exigencies. This advantage belongs exclusively to the Eastern route; though partially enjoyed by the Western route through West Tennessee, on account of its passing within reasonable distances from the capitals of Tennessee, Alabama, and through that of the State of Mississippi.

Military Considerations.

A national road from Washington City to New-Orleans, will afford facilities for a prompt concentration of forces, in case of internal disturbances, and for the marching of troops and despatching of munitions in case of foreign invasion. Under these points of view, it seems to us that it ought to be chiefly towards the States upon the

Gulf of Mexico, that the fulfilment of such purposes should be directed. Indeed, the States upon the Atlantic, compared, in point of situation, to those upon the Gulf of Mexico, are more contiguous to each other, and nearer to the seat of Government, and to our main Military and Naval establishments; they are also nearer to the districts of country now possessed of a dense population. As to the States upon the Gulf, their vicinity to the West India Islands; the comparative inconsiderable forces of their own, which they are able to concentrate in a given time; the kind of population they must watch closely at home; their remoteness from the inland States on which they depend for assistance; and, finally, the great importance of their preservation, as possessing the main outlets of our Western regions, are as many strong motives to direct, more particularly, towards the security of these States, the military advantages to be derived from the national road under consideration.

Under such an impression, we must observe that Tennessee and Kentucky, having, as inland States, no frontier of their own to defend, are more disposable than those of South Carolina and Georgia to lend a prompt and efficient assistance, in case of sudden emergency, to the States of Alabama, Louisiana, and to our Naval establishment at Pensacola. We must also take into view, that, owing to commercial intercourse, the Western States generally are more vitally concerned than the Southern States on the Atlantic, in the defence of our maritime frontier on the Gulf of Mexico. We are, therefore, led to believe, that, in a military point of view, either of the Western routes will fulfil more important requisites than the Middle or Eastern route.

Respecting the two Western routes, that through West Tennessee will, more than the other, facilitate the concentration of troops marching from those inland States from which is to be expected an immediate assistance. Besides, striking the Mississippi at Baton Rouge, this Western route reaches, at a convenient distance from the field of action, our Military depôt on that frontier, and the position at the head of the delta of the Mississippi. The Western route through East Tennesssee does not enjoy similar military advantages, and its crossing the Lake Pontchartrain cannot be considered as exempt from some inconvenience, in regard to the defence of New Orleans. However, this route intersects Pearl river not far below New Columbia, (Mississippi) a position which is central in relation to Baton Rouge, New Orleans, Mobile, and, we might add, Pensacola; therefore, these three last points will be more equally distant from succours by this route, than they would if the route had its direction to Baton Rouge.

Transportation of the Mail.

In order that a national road from Washington to New Orleans should procure to the transportation of the mail the greatest advantages, it does not suffice that it should be travelled over in the shortest time, and at the least possible expense; but it must also accommodate, laterally to its direction, the greatest extent possible of territory. Under this point of view, if the Western routes are not as cen-

tral as the others, in relation to the States they traverse, they have the advantage to be more central in regard to the States taken together, and comprehended between the Atlantic on the East, and the Ohio and Mississippi on the West.

As to the time necessary to perform the journey from Washington to New Orleans, we have already expressed that we were inclined to give the preference to the Middle route.

Respecting the expenses of transportation, they will be greater for the Eastern than for the Middle; and less for the two Western routes than for the Middle, if we do not take into consideration the excess of length of the Western route through West Tennessee. But, as such an excess will increase the expenses, the Middle and Western routes through East Tennessee have the advantage over the others, and the latter deserves the preference, more especially as to the cheapness of horses and forage.

As to travellers, they will be better and more cheaply accommodated upon the Middle and Western routes than upon the Eastern.

It is proper to remark in favor of the Western route through East Tennessee, that it passes not far below New Columbia, (Mississippi) which, as a distributing office, is most conveniently located in relation to Natchez, St. Francisville, Baton Rouge, New Orleans, Mobile, and even Pensacola.

Such are the main considerations of internal policy, which appear to us to be applicable to a National Road from Washington to New Orleans, and which might have weight in the selection of one of the routes investigated. We beg leave to present here their summary:

Commerce.—The Eastern route will enjoy the exclusive advantage of facilitating the commercial correspondence between our inland exporting and importing marts. The Middle and Western routes will contribute more than the Eastern, to the development of internal commerce and industry.

Accommodation of Population.—The Eastern and Middle routes will, in the present state of things, accommodate a greater population than the two Western routes; but taking into view, and by anticipation, the increase of population, the four routes ought, perhaps, to be placed on the same footing.

Political considerations.—The Eastern route has the advantage to pass by the Seats of Government of the Southern States; the Western routes, by crossing the chain of mountains which separates the Western from the Southern States, will afford an important connexion between those States.

War.—Through either Western routes, greater and more immediate assistance will be afforded, in times of emergency, to our maritime frontier on the Gulf, than through the other routes. In relation to the defence of Louisiana only, the Western route through West Tennessee is entitled to preference; but, in reference to the defence of the seaboard from Pensacola to the outlets of the Mississippi, the Western route through East Tennessee is more eligible.

Transportation of the Mail.—As to time, we are inclined to believe that the Middle route has the advantage over the others; as to ex-

pense, it will be less upon the Middle, and more especially, upon the Western route through East Tennessee, than upon the others.

Having thus investigated, to the best of our abilities, the points upon which, in our opinion, might rest the selection of the most suitable route for a National Road from Washington City to New Orleans, it would remain, in strict conformity to our instructions, to recommend which of the routes ought to be preferred. But, if certain advantages pointed out in this report can be expressed by figures to help in the comparison, yet the others, being of a moral kind, are susceptible of receiving, individually, unequal weight from different minds; and if to this difficulty is added that of comparing moral with physical advantages, we must candidly acknowledge that we cannot, without presumption, attempt to draw a conclusion as to the route which is entitled to the preference.

We shall, however, beg leave to remark that the difficulty of making a choice arises from a diversity of important advantages, many of which belong exclusively to one of the routes; and hence the impossibility to find a route which could be possessed, collectively, of all the advantages presented, separately, by the others. Were the object to be limited to a connexion of Washington with New Orleans, and to the accommodation alone of these two cities, one single road then would suffice. But, were the object directed towards a general system of roads through the Union, it would become necessary to fulfil the main requisites expected from such a system. The foregoing investigations show positively that one road could not alone, in relation to the extensive region of country between the Gulf of Mexico and the Chesapeake, accomplish all the national purposes to be attained. Two roads, then, would become indispensable: one on the eastern, the other on the western side of the chain of mountains; and, by adopting for each of them the mode of construction suitable to its peculiar object, the expense would likely prove inconsiderable, when compared to the many valuable advantages which would result from having two roads from the Seat of the General Government to New-Orleans, or rather from the Chesapeake to the Gulf of Mexico.

We close up this report by referring to the report made in April, 1826, for the suggestions submitted in relation to the ultimate surveys of the road adopted, to its mode of construction, and to its repairs; and by asking leave to insist again on the expediency of not undertaking, in a regular order of succession, the several sections of the road, but to commence, at first, the execution of those parts which, in the present state of things, oppose the greatest obstacles to transportation: such as the crossing of streams, of flat bottoms, and of swamps, the steep ascents and descents, and any other parts offering serious impediments.

All which is very respectfully submitted.

BERNARD, *Brig. Gen.*
Member of the Board of Internal Improvement.

WILLIAM TELL POUSSIN,
Capt. Top. Eng. Assistant to the Board.

WESTERN ROUTE, across the Cumberland Mountains, of a contemplated Road from Washington City to New Orleans.

SUCCESSIVE STANDS.	General courses.	Geological formation.	General face of the country.	Nature of the soil.	Products.	Main growth of timber.	Streams crossed by the road.	Lengths of the bridges.	Lengths of the causeways.	Graduation at 2°	Graduation at 3°	Graduation at 4°	Counties.	Population. White.	Population. Colored.	Population. Total	Distances. From the latter stand.	Distances. From Washington City
													VIRGINIA.					
From Washington City to Fairfax Court-House, or Providence.	W. of S. W.	*Primitive.* Quartz and gravels of good size in abundance. Blue slate, liable to decompose.	Rolling. The road crooked.	Sandy and subject to washing.	Grain.	Oak, chesnut of small size, some pines, a few persimmons.	Potomac river, (at Georgetown) -	Yards. 600 Yards. 600	None.	Miles. 7	Miles. 5	Miles 3	Fairfax - -	6,224	5,180	11,404	Miles. 15	Miles. 15
From Fairfax to Warrenton, through Centreville, Buckland, New Baltimore.	W. of S. W.	*Primitive.* Quartz, iron sandstone in abundance. Dark red clay liable to decompose. Red clay from New Baltimore to Warrenton. The ground stony & firm.	Generally hilly. The last six miles very much broken. The road from Fairfax to New Baltimore, (24 miles,) is a turnpike, out of which 17 miles are of bad construction; 7 miles of good construction.	Clay mixed with sand, much exhausted. Extensively cleared and well cultivated.	Grain.	Oak, chesnut, a few pines.	Block run - - 12 Cub run - - 30 Bull run - - 35 Broad run - - 20 A branch of Cedar run 8	- 105	None.	14	8½	7½	Prince William	4,761	4,658	9,419	30	45
										-	-	-	Fauquier - -	11,429	11,674	23,103		
From Warrenton, (in the direction of Rock-Fish Gap,) to Mr. Richard's.	S. W.	*Primitive.* Primitive rocks and blue slate in abundance.	Hilly.	Generally clay. Very rocky.	Grain; cleared and well settled.	Oak, pine, some chesnut.	Rappahannock river	30 30	None.	2	2½	2½	- -	-	-	-	7	52
From Mr. Richard's to R. J. Tutt's.	S. W.	*Primitive.* Red sand stone, white flint stone, some slate rocks.	Hilly and much broken immediately on the banks of the Gourdwine river.	Clay and sand of good quality, but mostly exhausted. The country extensively cleared.	Grain.	Oak, hickory, chesnut, pine.	Gourdwine river -	100 100	None.	8	8	5	Culpepper -	11,136	9,808	20,944	21	73
From Tutt's to Barton's.	S. W.	*Primitive.* Red sand stone, white flint, some gravel on the side of the hills.	Hilly and broken on the bank of the streams. The road crooked & following chiefly by-roads.	Sand and clay, with intervening strips of red clay. Much cleared; well cultivated.	Grain.	Oak, chesnut, pine.	Crooked run - - 40 Robertson river - 50 Rapid Ann river - 70	160	None.	12	7½	4½	Madison - -	3,800	4,690	8,490	24	97
From Barton's to Del. Maupan's.	S. W.	*Primitive.* Red sand stone, some granite, white flint or quartz, in great abundance, gravel on the side of the hills.	Hilly on the 12 first miles; much broken on the 9 last miles.	Clay and sand, with intervening strips of red clay. Good soil in the bottom of the valleys. Thickly inhabited.	Corn, tobacco, some cotton for home consumption.	Oak, chesnut, pine.	Great creek - - 28 North fork of Rivanna river - - 20 Buck Mountain creek 10 Ward's creek - 10 Moman's creek - 60	128	None.	8	7	6	Orange - -	5,219	7,694	12,913	21	118
									- -	-	-	-	Albemarle -	8,715	11,035	19,750		
From Maupan's to Black's Tavern, Rock Fish Gap.	S. W.	*Primitive.* On the eastern side of Blue Ridge, granite and red sand stone; on the western side lime stone makes its appearance; black and grey flint stones.	Hilly. The ascent on the eastern side of the Blue Ridge, from the foot to the top, is 2¼ miles; the descent on the western side, from the top to the foot, 1 mile. This portion of road crosses the Blue Ridge at Rocklish Gap.	On the eastern side of the Blue Ridge, clay and sand of indifferent quality; on the western side, chiefly hard clay.	Grain and tobacco on the eastern side; grain on the western side.	Oak, chesnut, pine, on the eastern side; oak on the western side.	Beaver run - - 8 Stockton's run, (a branch of Meekum's river - - 8 South branch of Shenandoah river - 40	- 56	- - 300 yds.	10	9	7	Augusta - -	12,963	3,779	16,742	26	144
From Black's Tavern to Lexington.	W. of S.	*Transition.* Lime stone, fragments of red sand stone, gravel.	Hilly and broken immediately on the banks of streams.	Clay, tough and adhesive when wet; very hard when dry. The country thickly inhabited.	Grain; some tobacco.	Oak, chesnut, hickory.	A branch of the South river of the Shenandoah Head water of ditto - 30 A branch of the South fork of James river Another branch of do. A branch of north fork of James river - 15 The same branch again 15 North branch of James river - 100	160	- - None.	12	12	7	Rockbridge -	9,038	2,907	11,945	31	175

WESTERN ROUTE—Continued.

SUCCESSIVE STANDS.	General courses.	Geological formation.	General face of the country.	Nature of the soil.	Products.	Main growth of timber.	Streams crossed by the road.	Lengths of the bridges.	Lengths of the causeways.	Graduation at			Counties.	Population.			Distances.	
										2°	3°	4°		White.	Colored.	Total.	From the latter stand.	From Washington City.
													VIRGINIA.					
From Lexington to Pattonsburg.	S. W.	*Transition.* Fragments of limestone, and sandstone impregnated with iron; black flint rocks.	Hilly, but moderately, except three miles, (at Buffalo Creek.) which are much broken. The road is much crooked.	Limestone clay; tough and adhesive when wet; very hard when dry.	Grain and tobacco.	Oak, poplar, hickory, chesnut, some cedars.	Buffalo Creek - -	Yards. 70	Yards. - - None.	Miles. 12	Miles. 8	Miles. 5	Botetourt	10,493	3,096	13,589	Miles. 25	Miles 200
							A branch of Purgatory creek	85										
							Purgatory creek -	15										
From Pattonsburg to Salem.	S.W. 14 ms. S. 6, W. of S.W. 10 ms.	*Transition.* Fragments of limestone and sandstone, strongly impregnated with iron.	Rolling.—The road is very crooked.	Limestone clay; tough and adhesive when wet, very hard when dry. Sandy on four miles from Cloverdale.	Grain, hemp, flax, tobacco in small quantity, live stock.	Oak, walnut, hickory. locust, some pines.	James river - -	120	- - None.	19	8	3	- - -	- -	- -	- -	30	230
							Mills creek - -	30										
							Tinker creek - -	15										
							Curvin's creek -	12	209									
							Peter's creek - -	12										
							Madison's creek -	20										
From Salem to John May's Inn.	S. W.	*Transition.* Fragments of limestone and sandstone, strongly impregnated with iron. Gravel.	Pretty level.—The road very crooked.	Limestone clay; tough and adhesive when wet, very hard when dry.	Grain, hemp, flax, tobacco in small quantity, live stock.	Oak, walnut, hickory, locust, some pines.	Roanoke river -	20	- - None.	8½	4	1½	- - -	- -	- -	- -	14	244
							South Fork do. crossed twice - -	40	60									
From John May's to English Ferry, on the Great Kenhawa.	S. W.	*Transition.* Fragments of limestone and sandstone, strongly impregnated with iron. Gravels of large size.	Hilly.—This portion of road commences to ascend the ridge dividing the Kenhawa from Roanoke river.	Limestone clay, mixed with sand; the ground is hard and compact.	Grain, hemp, flax, tobacco in small quantity, live stock.	Oak, hickory, pine.	Roanoke river -	20	- - 60	10	10	4	Montgomery -	7,447	1,286	8,733	24	268
							Great Kenhawa -	240	260									
From English Ferry to Jas. McGirock's Inn.	S. W.	*Transition.* Fragments of limestone in greater quantity than before. Fragments of sand stone. All these rocks impregnated with iron. Gravels of good size.	Hilly and broken. the road is crooked.	Limestone clay, mixed with sand.	Grain, hemp, flax, tobacco in small quantity. The country well settled.	Oak, hickory, pine.	Peak creek - -	20	- - None.	12	8½	4½	Wythe -	8,111	1,781	9,892	25	293
							Max's creek - -	10										
							Pine run - - -	8	108									
							Reed creek - -	70										
From McGirock's to N. Adkin's.	W. of S. W.	*Transition.* Limestone in abundance. Gravel of large size. Iron impregnated in all the rocks.	Hilly; in some places rolling.	Limestone clay, mixed with sand: ground hard and compact; the country thickly settled.	Grain, hemp, flax. tobacco in small quantity.	Oak, hickory, pine.	Reed creek - -	40	- - None.	14	10	5	- - -	- -	- -	- -	29	322
							Reed creek - -	30										
							S. Fork of Reed creek	10										
							Do. again - -	10	112									
							Mid. F'k of Holston R.	10										
							Same fork cross'd ag'n	12										
							Same fork cross'd ag'n											
From Adkin's to Seven Miles Ford.	W. of S. W.	*Transition.* Limestone rocks in abundance. Great deal of gravel of large size.	Chiefly rolling. The road very crooked.	Mould of good quality, mixed with red and yellow clay.	Grain, live stock: salt, in abundance; saltpetre and marl, in great quantity.	Oak, maple, black walnut, butternut, hickory, poplar.	Middle Fork of Holton river - -	12	- - None.	8	4	2	Washington -	10,393	2,151	12,544	14	336
							Do. again - -	12										
							Do. again - -	15	70									
							Do. again - -	15										
							Slaty creek - -	8										
							Rock creek - -	8										
From Seven Miles Ford to Abingdon.	W.	*Secondary.* Limestone rocks in great abundance—some gravels of large size.	Rolling.—The road very crooked.	Limestone clay, with mould of good quality. The ground hard in dry weather, soft in wet weather.	Grain, live stock.	Oak, maple, black walnut, butternut, hickory, poplar.	Brook Hull creek -	8	- - None.	11	9	2	- - -	- -	- -	- -	22	358
							Greenwy creek -	8	16									
							Wolf hill creek -											

SUCCESSIVE STANDS.	General course.	[illegible]	General face of the country.	Nature of the Soil.	Products	Main growth of Timber.	Streams crossed by the road.	Lengths of the Bridges.	Lengths of the Causeways.	Graduation, at			Counties.	Population.			Distances.	
										2°	3°	4°		White.	Colored.	Total.	From the latter stand.	From Washington City.
													TENNESSEE.					
From Abington to Blountsville. To the Boat Yard, at the Forks of Holston River, there are three roads: Reed C. Road, 30½ miles, Island Road, 39 1/16 miles, Blountsville Road.	S. W.	*Secondary.* Limestone rocks in abundance; small gravel.	Rolling. The road pretty direct.	Oak-land; limestone clay, mould of good quality.	Grain, live stock.	Oak, hickory, poplar, chesnut, some cherry trees and pines.	Wolf Creek, - - Spring Creek, - Sinking Creek, - One head of Beaver Cr. Beaver Creek crossed four times, which might be avoided,	Yards. - - 8 } 8	Yards. - - None.	Miles. 14	Miles. 8	Miles. 2	Sullivan.	6,038	932	7,015	Miles. 24	Miles. 382
From Blountsville to Widow Hords'.	W.	*Secondary.* Limestone rocks, and small gravels.	Broken on the 13 first miles; the 13 last miles waving. The road is much crooked, and it crosses the Chesnut Ridge.	Clay and mould of good quality, before crossing the ridge; sand, mixed with fine gravel, after crossing the ridge. The bottom of the Holston, rich black mould.	Grain.	Oak, chesnut, poplar, beech; pines after crossing the ridge.	Blountville Creek, - Reedy Creek, - North Branch of Holston River, -	40 30 100 } 170	- - None.	12	8	6	- - -	- -	- -	- -	26	408
From Widow Hord's to Red Bridge post office.	W. of S. W.	*Secondary.* Limestone rocks and marble.	Hilly and broken; the road crooked.	Chiefly limestone clay, with a coat of mould of good quality. The country well settled.	Grain, maple sugar, live stock.	Oak, hickory, poplar, pine; some walnut, maple, beech, persimmon, chesnut.	Rice Creek, - Rent-Frose Creek, - Armstrong Creek, - Surgoin's Creek, - Sinking Creek, - Big or Marshall's Cr. Caney's Creek, - Cloud's Creek, -	- } 90 30 40 20	- - None.	13	9½	7	Hawkins.	9,308	1,641	10,949	29½	437½
From Red Bridge post office to Jarnagin's.	W. of S. W.	*Secondary.* Limestone rocks, hard blue slate, small gravels.	Level. The road pretty direct. At Bean's Station, 20½ miles from Red Bridge, the road is crossed by that of Ohio and Kentucky, leading to N. Carolina.	Red clay, with a coat of good mould. Thickly settled.	Grain, cotton for home consumption, horses.	Oak, hickory, sycamore, ash, pine, maple.	Valley Creek, - German's Creek, - Richland Creek, - Patterson's Creek, -	15 8 8 } 31	None.	23	6	1½	Grainger.	6,601	1,050	7,651	30½	468
From Jarnagin's to Knoxville.	W. of S. W., then S. W.; the five last miles S.	*Secondary.* Limestone rocks, hard blue slate, small gravel; coal, of excellent quality, near Knoxville.	Waving on the 15 first miles; hilly and broken on the 8 last miles.	Red clay, covered with some mould.	Grain, cotton for home consumption, horses.	Oak, hickory, sycamore, ash, beech, maple, pine.	Flat Creek, - Raspberry Creek, - White Creek - - First Creek, - -	40 } 60 20	None.	10	7	6	Knox.	11,126	1,908	13,034	23	491
								1m 918	360	239½	159½	92		142,847	75,270	218,117		491

The foregoing part of this Itinerary Table is common to the route now under consideration, and to the Western Route which passes through East Tennessee, and has been examined in 1825, and reported upon in 1826.
The following part of this Itinerary Table belongs exclusivelyto the Western Route now under consideration, which route, from Knoxville, is the continuation of the former through West Tennessee, and across the Cumberland Mountains.
The general abstracts here above presented are, therefore, to be carried over.

WESTERN ROUTE---Continued.

SUCCESSIVE STANDS.	General Courses.	Geological Formation.	General face of the Country.	Nature of the soil.	Products.	Main growth of Timber.	Streams crossed by the road.	Lengths of the Bridges.	Lengths of the Causeways.	Graduation, at			Counties.	Population.			Distances.	
										2°	3°	4°		White.	Colored.	Total.	From the latter stand.	From Washington City.
								Yards.	Yards.	Miles.	Miles.	Miles.	TENNESSEE.				Miles.	Miles.
From Knoxville to R. Hewet's.	S. of W.	*Secondary.* Limestone and sandstone. These materials at convenient distances from the road.	The 10 first miles pretty level, the 5 following also; but the 11 last miles very hilly.	Yellow and red clay, in succession.	Live stock and grain.	Chiefly oak; some pines, hickories, walnuts, chesnuts.	The water courses requiring bridging,	-	None.	9½	11	5½	Knox, -	- -	- -	- -	26	517
From R. Hewet's to Post Oak-Spring.	S. of W.	*Secondary.* Limestone and sandstone. These materials at convenient distances from the road.	Hilly and broken.	Chiefly red clay, but alternating with yellow clay, mixed with sand.	Live stock; some grain.	Chiefly oak; some pines, hickories, walnuts, chesnuts.	Tennessee River, - - 300 Canny Fork of ditto, 55	355	None.	4	9	8	Roane, - -	7,025	870	7,895	21	538
From Post Oak-Spring to Crab Orchard. (See Remarks A.)	W.; generally much winding.	*Secondary.* Limestone and sandstone are at convenient distances from the road.	The 5 first miles, and the 2¾ last miles tolerably level; but the 10¾ others, across Spencer Hill and Waladon Ridge, are very hilly and broken.	Poor, and chiefly sandy; some clay.	Live stock.	Oak, the black jack kind predominating.	Piny Creek, - - 25 Mama's Creek, - - 20	45	None.	5	6	7 above 4 degrees.	Bledsoe, -	3,616	389	4,005	18	556
From Crab Orchard to Eastland's. (See Remarks A.)	S. of W.	*Secondary.* Limestone; sandstone on the top of the hills. Materials convenient every where.	Hilly and broken; some intervening sections between the water courses are comparatively level. The 12 last miles are less hilly than the 14 first.	Yellow clay, mixed with much sand.	Live stock; some grain.	Oak, the black jack kind often predominating.	Dady Creek, - - 70 Canny Fork, - - 30 West Canny Fork, - 6	106	None.	13	9	4	White, - -	7,981	720	8,701	26	582
From Eastland's to Sparta.	S. of W., generally much crooked.	*Secondary.* Limestone; sandstone on the tops of the ridges. Materials are every where at convenient distances from the road.	Hilly and broken.	Red and yellow clay.	Cotton, grain, live stock.	Oak, chesnut, walnut, hickory, poplar, beech.	Clifty Creek, - - 20 Losc Creek, - - 6	26	None.	3	5	4	- - -	- -	- -	- -	12	594
From Sparta to McMinville. (See Remark B.)	S. of W. for the 13 first miles; S. W. for the 13 last miles.	*Secondary.* Limestone. Materials at convenient distances from the road.	Hilly and somewhat broken.	Red and yellow clay.	Cotton, grain,	Oak, chesnut, walnut, hickory, poplar.	Calf-killer Creek, - 100 Canny Branch, - 350 Collins' River, - 125	575	None.	11	11	4	Warren, -	9,377	971	10,348	26	620

SUCCESSIVE STANDS.	General courses.	Geological formation.	General face of the country.	Nature of the soil.	Products.	Main growth of timber.	Streams crossed by the road.	Lengths of the bridges.	Lengths of the causeways.	Graduation at			Countries.	Population.			Distances.	
										2°	3°	4°		White.	Colored.	Total.	From the latter stand.	From Washington City.
													TENNESSEE AND ALABAMA.					
								Yards.	Yards.	Miles.	Miles.	Miles.					Miles.	Miles.
From McMinnville to Winchester.	W. of S.	*Secondary.* Chiefly limestone. Materials are found all the way, at limited distances from the road.	The 22 first miles hilly; the 18 last miles only undulating.	Limestone clay generally. The 22 first miles tolerably good; the 9 following are barren; the 9 last miles very rich limestone clay.	Main staple, cotton, grain.	Oak, hickory, chesnut. For the nine miles of barren soil, black jack is predominating.	Barren branch - -	55	-	20	13	7	Franklin.	12,338	4,223	16,561	40	660
							A small branch - -	20										
							Elk river - -	45	700									
							Boiling spring Branch	45										
								165										
From Winchester to Salem.	S.	*Secondary.* Limestone and flint. Materials found at convenient distances from the road.	Tolerably level.	Rich clay.	Main staple, cotton, grain.	Oak, hickory, poplar.	No water courses requiring bridging.	-	None.	7	3	•	- -	-	-	-	10	670
From Salem to Mount Pleasant.	W. of S.	*Secondary.* Limestone and flint. Materials generally at limited distances from the road.	Somewhat hilly.	Rich clay.	Main staple, cotton, grain.	Oak, hickory, poplar.	Bean's creek - -	15	-	11	7	2	- -	-	-	-	20	690
							A branch - -	5	2 miles. Thrown up 24″									
							A small branch -	6										
							A branch of Flint cr'k	30										
								56										
From Mt. Pleasant to Huntsville, Alabama.	W. of S.	*Secondary.* Limestone. Materials are, all the way, on the spot.	Tolerably level.	Rich clay.	Main staple, cotton, grain.	Oak, hickory, poplar.	Flint creek - -	50 50	*1 m. 00 *Thrown up 24″	9	5	1	Madison -	8,813	8,668	17,481	15	705
From Huntsville to Brown's Ferry (right bank.) (See remark C.)	W.	*Secondary.* Limestone. Materials at the surface of the ground, except in the bed of water courses, and in the vicinity of Huntsville.	Level.	Red and yellow clay alternating, both very rich.	Main staple, cotton, grain.	Oak, hickory, poplar, beech.	A branch - -	20	-	20	11	2	Limestone -	6,922	2,949	9,871	33	738
							Another branch -	10										
							Limestone creek -	24										
							Piny creek - -	20	*1 m. 880 *Thrown up 24″									
							Swan Creek - -	24										
							A branch - -	6										
							Round Island creek -	15										
								119										
From Brown's Ferry to Courtland.	S. W.	*Secondary.* No materials at the surface of the ground.	Level.	Rich clay.	Main staple, cotton, grain.	Oak, hickory, poplar, beech.	Tennessee river -	1 m. 00	*1 m. 00 *On left bank Ten. river.	10	2	•	Lawrence -	-	-	-	18	756
From Courtland to Russelville.	S. W.	*Secondary.* On the 6 first miles, limestone; on the 15 following, no materials at the surface of the ground, but soil is of hard and compact sand; on the 7 last miles, limestone mixed with gravel.	Mostly level, except at the descent into Tennessee valley.	The 6 first miles limestone clay, with a dark mould; on the 15 following, sand is predominating; on the 7 last miles, limestone red clay.	Main staple, cotton, grain.	Chiefly oak; some hickory, chesnut, short-leaf pines.	Big Nance creek -	35	-	20	5½	2½	- -	-	-	-	28	778
							A creek 8 miles from Courtland - -	22	None.									
							Another creek 13 miles from ditto -	20										
							Another creek 14½ miles from ditto -	45										
							Another creek 17 miles from ditto -	8										
							Another creek 18 miles from ditto -	8										
							Another creek 26 miles from ditto -	6										
								144										

Russia
Sweden and Norway

WESTERN ROUTE—Continued.

SUCCESSIVE STANDS.	General courses.	Geological formation.	General face of the country.	Nature of the soil.	Products.	Main growth of timber.	Streams crossed by the road.	Lengths of the bridges.	Lengths of the causeways.	Graduation at			Counties.	Population.			Distances.	
										2°	3°	4°		White.	Colored.	Total.	From the latter stand.	From Washington City.
													ALABAMA.					
From Russelville to Holloway's.	S.	Secondary as far as Little Bear creek, 12 miles from Russelville. Primitive on the 11 remaining miles. On the 12 first miles, limestone rocks and gravel are found at convenient distances from the road; on the 11 last miles, iron sandstone and gravel all the way.	Tolerably level, except at the crossings of Little Bear creek and Big Bear creek; the first crossing is about half a mile long, the other is 1½ miles long: both are very steep.	The six first miles rich clay; the 17 following miles sand and clay.	Cotton, grain.	On the 11 last miles chiefly oak. On the 12 first miles oak, hickory, chesnut, some cedars.	A creek six miles from Russelville - 20 Little Bear creek - 40 Big Bear creek - 60 A small branch - 6	Yards. 131	Yards. 200	Miles. 13	Miles. 6	Miles. 4 above 4 deg.	Franklin -	3,308	1,680	4,988	Miles. 23	Miles. 801
From Holloway's to Pikeville. (See remark D.)	S.	*Primitive.* Iron sand-stone and gravel found every where, and more especially on the top of the hills.	On the 11½ first miles hilly; on the 3½ following pretty level; on the 6 last miles hilly. The road generally a ridge road.	Sand and clay.	Cotton and grain.	Chiefly oak; a few short-leaf pines.	Williams' creek - 18 A small branch - 18 The North Fork of Buttahacchee - 50	86	None.	6	6	9 above 4 deg.	Marion -	- -	- -	- -	21	822
From Pikeville to Fitzgirald's.	W. of S.	*Primitive.* Iron sandstone and gravel are found every where, and more especially on the top of the hills.	Hilly and broken. The road is a ridge road; the ground generally precipitous on each side.	Sand and clay; the mould is not deep.	Cotton and Grain.	Short-leaf pine; oak predominating at many places.	A branch of Beaver creek - 24 Another branch of do. 10 Another branch of do. 24	58	300	5	6	4	- -	- -	- -	- -	15	837
From Fitzgirald's to Perkins'.	S. W.	*Primitive.* Sandstone and freestone. Gravels, iron sandstone, and iron gravels, are found all along the road; occasionally red sandstone, in layers.	Very hilly and broken.	Sand and clay; sand predominating.	Cotton and grain.	Pine, oak, chesnut, a few hickories.	A small branch - 7 Another branch - 20 Another branch - 18	45	200	7	10	11½	- -	- -	- -	- -	28½	865½
From Perkins' to the Indian Agency. (See remark E.) From Perkins' to Columbus the distance is 11½ miles.	S. W.	Primitive as far as the Tombeckbee, 11½ miles. Secondary on the 22 remaining miles; rotten limestone makes its appearance in the bed of streams: and fragments of shells, rotten limestone, are found.	From Perkins' to Columbus, on the Tombeckbee, 11½ miles, the country is level, as also for the 12 following miles. The 10 last miles undulating.	On the 11½ miles sand and clay; on the 12 following miles limestone prairies; on the 10 last miles sand and limestone clay: on the banks of the Tombeckbee samly soil.	Corn, oats, cotton.	Oak and pine of good size.	Tombeckbee river - 80 Gulleys, 3 in number 23 Do. 3 do. - 30 Do. 1 do. - 6 Do. 2 do. - 20 Do. 1 do. - 8 Do. 1 do. - 10 A branch - - 10	Lowest stage 2 m. Thrown up 3 ft. yds. 600 Thrown up 24".	27½	5	1	Monroe -	5,014	3,824	8,838	33½	899
								187					CHOCTAW NATON. 17,000 inhabitants.					
From the Indian Agency to McKenney's.	S. W.	*Primitive.* Sandstone and iron ore.	Level on the five first miles, hilly on the last ten miles.	Sand and clay: clay predominates in the bottom of the valleys.	Corn, oats, cotton for home consumption.	Oak, hickory, short-leaf pine.	A branch, 4 bridges 70 A branch, 4 do. 99 Drains, 3 do. 43 Drains, 4 do. 55 A branch - - 12	279	2 m.	6	4	5	- -	- -	- -	- -	15	914

SUCCESSIVE STANDS.	General courses.	Geological formation	General face of the Country.	Nature of the soil	Products.	Main growth of Timber.	Streams crossed by the road.	Lengths of the Bridges.		Lengths of the Causeways.	Graduation, at			Counties.	Population.			Distances.	
											2°	3°	4°		White	Colored.	Total.	From the latter stand.	From Washington City.
								Yards.		Miles. Yds.	Miles.	Miles.	Miles.	CHOCTAW NATION.				Miles.	Miles.
From McKenney's to Parker's.	S. W	*Primitive.* Sandstone found in many places, and generally on the summit of the hills.	Much undulating on the 13 first miles, hilly on the 7 following; very hilly and broken on the 13 last miles.	Chiefly sand mixed with clay.	Corn, oats, cotton, for home consumption.	Short leaf pine, oak, hickory, chesnut.	A Branch,	8			8	11	14					33	947
							Gulleys. (2 in number)	15											
							A Branch,	15											
							Gulley, (1 in number)	8	93	800									
							A Branch	10											
							Another Branch,	15											
							Another Branch,	10											
							Another Branch,	12											
From Parker's to Harris's.	W. of S.	*Primitive.* Red sandstone found at several places. No materials to make a road.	Hilly.	Chiefly sand; some intervening stripes of red clay.	Corn, wheat, oats, cotton for home consumption.	Pine, oak; some hickories and walnuts.	A Branch,	7	-	- - -	10	12	4½		-	-	-	26½	973½
							Lubutsher Branch, and 7 drains,	97											
							A Branch of Pearl river, and 4 drains,	53											
							A Branch,	15	*604	* 2 260									
							Jockanskany, a branch of Pearl river, and 18 drains,	323	*This bridging is made.	* These causeways are made.									
							A Branch,	87											
							Another Branch,	12											
							Another Branch,	10											
From Harris's to Billingsley's. (See Remark F.)	S. W.	*Secondary.* Some blue limestone and sandstone are found accidentally. No materials to make a road.	Tolerably level on the 5½ first miles: hilly on the 18 last miles.	Limestone clay.	Cotton, corn, oats.	Oak and hickory, of good size.	A Branch,	15	-	- - -	15	5½	3	MISSISSIPPI. Yazoo.	-	-	-	23½	997
							Another Branch,	6											
							Another Branch,	10											
							Another Branch,	12	81	300									
							Another Branch,	10											
							Another Branch,	12											
							Another Branch,	6											
							Another Branch,	10											
From Billingsley's to Jackson.	S. W	*Secondary* Limestone. No materials at the surface of the ground.	Hilly.	Limestone clay, mixed with sand.	Cotton, corn, oats.	Oak of common size.	Bugtugah Creek,	18	Made.	- - -	5	5	3	Hinds,	-	-	-	11	1,008
							A Branch,	12											
							Another Branch,	10											
							Stooping White Oak cr.	*25	126	200									
							A small Branch,	10	*Made.										
							Hanging Moss Creek,	34	Made.										
							Chesnut Creek,	20	Made.										
From Jackson to Hale.	S. W.	*Alluvial.* No materials except gravels found in a few places, and on the top of the hills. Rocks are found not far from Hale.	Hilly on the 13 first miles, rolling on the 10 last miles.	Clay and sand.	Cotton, oats, corn.	Red oak, of good size.	A Branch,	25	-	- - -	13	6	4	Hinds,	-	-	-	26	1,034
							Another Branch,	12											
							Another Branch,	12											
							Another Branch,	18											
							Another Branch,	6	153	300									
							Another Branch,	12											
							Another Branch,	18											
							Another Branch,	12											
							Harrison Creek,	20											
							Rose's Creek,	18											

SUCCESSIVE STANDS.	General courses.	Geological formation.	General face of the country.	Nature of the soil.	Products.	Main growth of timber.	Streams crossed by the road.	Lengths of the bridges.	Lengths of the causeways.	Graduation at 2°	Graduation at 3°	Graduation at 4°	Counties.	Population. White.	Population. Colored.	Population. Total.	Distances. From the latter stand.	Distances. From Washington City.
								Yards.	Yards.	Miles.	Miles.	Miles.	MISSISSIPPI.				Miles.	Miles.
From Hale to Kennedy's.	S. W. The latter part S.	*Alluvial.* Gravels found only in a few places, and on the summit of the hills.	Hilly.	Sand, except at the bottom of valleys.	Cotton, oats, corn.	Pine. Oak in the bottom of valleys.	A branch of Copia Another branch of do. A branch of Bahala cr. Another branch of do. Another branch of do. Another branch of do.	15 12 12 15 10 15 — 79	— *400 *For the br's. of Copia crk. *400 *For the branches of Bahala crk.	15	10	8	Copia. —	—	—	—	33	1,064
From Kennedy's to Smith's.	S. W.	*Alluvial.* No materials except at the crossing of water courses, where gravel is found.	Undulating on the 17 first miles; level on the 8 last.	Sand mixed with some clay; clay in the bottom of valleys.	Cotton, oats, corn.	Pine. Scattered oaks.	Behailey's creek Bughitto swamp A branch Another branch Another branch Eastern fork Amite R. A small branch	6 15 15 6 5 20 7 — 74	— 900	16	7	2	Lawrence. —	3,919	997	4,916	25	1,089
From Smith's to Liberty.	S. W.	*Alluvial.* Some small gravels.	Undulating.	Sand and clay; clay predominating at the crossing of the head branches.	Cotton.	Pine and oak: oak predominating across the head branches.	Pumpkins Patch crk. Terill's creek Arnold's creek Weathersby creek Weathersby creek Windborn creek	12 10 12 10 6 5 — 55	— None.	12	4	2	Amite. —	4,006	2,847	6,853	18	1,107
From Liberty to Col. J. Nelson's.	S. W.	*Alluvial.* Occasionally some gravels of small size.	Broken on the 14 first miles; level on the 4 last miles.	Sand and clay on the 12 first miles; clay on the 6 last miles.	Cotton, corn, oats.	On the 12 first miles pine, oak; on the 6 last miles more pines.	Amite river A small branch A branch of Amite riv. Berry's creek Beaver creek	36 10 15 35 56 — 152	— 1,100	8	6	4	— — —	—	—	—	18	1,125
From Nelson's to Buhlers.	S. W.	*Alluvial.* No materials.	Rolling on the 17½ first miles, but broken at the crossing of streams; broken on the 4 following miles; generally level on the 9 last miles.	Deep clay, mixed with sand; the former predominating. Red clay at many places.	Cotton, corn.	Red oak, beech, poplar, persimmon, magnolia.	E. branch of Comite R. W. branch of Comite R. Kerr's creek	66 66 — 142 10 —	150 200	14	11	5¼	LOUISIANA. East Feliciana, (parish.)	5,434	7,298	12,732	30½	1,255½
From Buhler's to Baton Rouge.	S. W.	*Alluvial.* Except some soft pebbles, found by digging. No materials for a road.	Level on the 12 first miles; broken on the 3 last miles.	Clay and sand, the former predominating. Soil deemed of 2nd rate quality.	Cotton, corn, sugar.	Red oak, beech, some poplars.	John's creek Montesano creek Grassee creek	5 10 — 23 8	— 166 110	10	3	2	East Baton Rouge, (parish.)	2,600	2,620	5,220	15	1,170½
From Baton Rouge to Mr. Nelson's. (See remark G.)	S.	*Fluvial deposite.* No materials.	Level. This portion of road is called highland road: it leaves to the W. the road along the bank of the Mississippi. This latter road is longer by 4 miles.	Clay. Rich soil.	Cotton, sugar.	Red oak, beech, poplar, magnolia.	— — —	—	—	10	1		— — —	—	—	—	11	1,181½

WESTERN ROUTE---Continued.

SUCCESSIVE STANDS.	General courses.	Geological formation.	General face of the country.	Nature of the soil.	Products.	Main growth of Timber.	Streams crossed by the road.	Lengths of the bridges.	Lengths of the causeways.	Graduation, at			Counties.	Population.			Distances.	
										2°	3°	4°		White.	Colored.	Total.	From the latter stand.	From Washington City
													LOUISIANA.					
From Mr. Nelson's to Mr. Henderson's Plantation.	E. of S.	Fluvial deposite.	Level and low. This portion of road follows on the bank of the Mississippi, except a cut-off of 2 miles, which commences at 3 miles from Mr. Nelson's. This cut-off shortens the levee road by 10 miles, about.	Rich flat bottom.	Sugar, cotton, corn.	Live oak, cypress, gum tree, red oak, magnolia.	Iberville river, (about	Miles. Yds. 14	Miles. Yds. *2 *Thrown up 24 inches.	Miles. 18	Miles. -	Miles. -	Iberville (Parish)	2,019	2,395	4,414	Miles. 18	Miles. 1,199½
From Mr. Henderson's Plantation to Mr. Chalduc's Plantation.	E.	Fluvial deposite.	Level and low. A little above Hampton's plantation commences a cut-off of 4 miles, which would shorten the road by 9 miles about; the expense to make it practicable would be great.	Rich flat bottom.	Sugar, cotton, corn.	Live oak, cypress, gum tree, red oak, magnolia.	- - - -	- - -	- - -	23	-	-	Ascension (Parish)	1,495	2,233	3,728	23	1,222½
From Mr. Chalduc's to Mr. Deslonde's Plantation.	E.	Fluvial deposite.	Level and low. As from Mr. Henderson's to Mr. Chalduc's, the road follows on the bank of the Mississippi.	Rich flat bottom.	Sugar, cotton, corn.	Live oak, red oak, cypress, gum tree, magnolia.	- - - -	- - -	- - -	21	-	-	St. James' (Parish)	2,522	3,138	5,660	21	1,243½
													St. John Baptist (Parish) -	1,532	2,322	3,854		
From Mr. Deslonde's to Louisiana Hotel, (kept by Pierre Damaine.)	E.	Fluvial deposite.	Level and low. The road continues to be the levee road.	Rich flat bottom.	Sugar, cotton, corn.	Live oak, red oak, cypress, magnolia, orange tree.	- - - -	- - -	- - -	12	-	-	St. Charles' (Parish)	727	3,135	3,862	12	1,255½
From Louisiana Hotel to New Orleans.	E.	Fluvial deposite.	Level and low. The road continues to be the levee road, as it has done generally from Mr. Nelson's to Louisiana Hotel.	Rich flat bottom.	Sugar, cotton, corn.	Live oak, red oak, cypress, magnolia, orange tree.	- - - -	- - -	- - -	27	-	-	Orleans (Parish)	5,660	8,515	14 175	27	1,282½
													New Orleans City.	13,584	13,592	27,176		
Total abstract of bridges, causeways, graduation, population, and distance from Washington City to New Orleans - -								4 1 421	17 1,056	683½	37.3½	225½		250 739	148.6 6	399 45		1,28 ½

REMARKS.

A. From *Post Oak Spring* to *Dowson's Stand*, twelve miles from Eastland's, and on a distance of thirty-two miles, the actual road and the new road now constructing, and called *Gordon's road*, deserve both more particulars than the table could admit; therefore these particulars must be presented separately: they make the subject of this remark.

The most difficult portion of the actual road is from Post Oak Spring to Crab Orchard, on account of the crossing of Spencer's Hill and Waladon Ridge. Travelling from Crab Orchard to Post Oak Spring, it is at two and a quarter miles from Crab Orchard that commences the ascent of Spencer's Hill: at this point a portion of road is now making on the right and in a due east direction. Its length will be about three miles. This portion of road will strike again the main road at four miles from the foot of the ascent, and, consequently, shorten the distance by one mile. Compared to the actual road, it will be of easy graduation. The ascent of Spencer's Hill is very steep and winding; at many places the graduation varies from six to nine degrees.

The summit point of Spencer's Hill is about five and a quarter miles from Crab Orchard. About four miles farther, another portion of road, one mile in length, might be made on the right in order to avoid a very steep hill. It is said that it would shorten the main road. About two miles farther, a portion of road might be ran by the left, which would procure a more easy graduation, and shorten the distance. There can be no doubt as to the practicability of improving the actual road; but the laying out of a new road, from minute surveys, will be the only means to ascertain what extent and degree of improvement might be bestowed on the direction of the road now travelled. A new road is at present making, by which Spencer's Hill is avoided. Its description is as follows, and is drawn from the state in which the road was when examined on the 11th and 12th of September, 1827:

This road leaves out the actual road at Dowson's Stand to strike it again at Post Oak Spring. For the three and a half first miles it passes over barrens, where materials are very scarce; it was, at the time of the examination on this distance, an old cart-track, full of stumps and unimproved. On the three following miles, the new road was clearing, on a width of thirty to forty feet, of all trees and roots. The road was, at this time, neither thrown up nor ditched. On this distance, the soil is grayish clay, mixed with yellow clay; sandstone occurs, but not frequently. The road then descends into Dada's Valley, and, after crossing Dada's creek, was narrow and rough, and not yet improved: the country becomes more hilly: sandstone occurs very frequently. The distance to the point where it begins to descend into the Grassy cove, is about two miles. The road, on this distance, was, at this time, steep, rough, and unimproved; limestone rocks are found in abundance. Dada's creek will require a bridge of fifty yards, and no causeway. The road follows through the Grassy cove, on a dis-

tance of about 3½ miles, a very winding and crooked course; the soil is chiefly clay. Brister's Stand, 12 miles from Dowson's, terminates this section of the new road. The second section runs from Brister's Stand to the Post Oak Spring. On leaving Brister's, the two first miles were not yet improved; the ground is moderately hilly. On the five following miles, the road is advantageously located on a ground chiefly descending; it was well grubbed and cleared, but not ditched; its width is 30 feet generally, but, on the hill sides, 18 feet. The descent into Piny creek is too narrow, and also too steep; materials are abundant, and sandstone occurs frequently. After crossing Piny creek, the road is located on the left bank of said stream, and continues to the Gordon's Iron Works, in following the left of White creek: the distance is 4 miles. An artificial support, 150 yards in length, was constructing to turn round a rocky bluff, lying at about two miles from Piny creek. A bridge, made of logs, has been thrown across Piny creek. The width of this creek is about 70 yards. Two other small bridges, 20 yards each in length, have been made to cross over torrents descending into White creek from the hill sides. This portion of road was almost finished; but, taking into consideration the great elevation of the road above the bottom of Piny and White creeks, (150 feet on an average,) as, also, the steepness of the hill side, the width of the road is not sufficient. The road is mostly level on the nine miles to Post Oak Spring; the ground being gravelly, it affords of itself an excellent natural road. From Brister's Stand to Post Oak Spring, the distance is twenty miles: therefore, the total distance from Dowson's Stand to Post Oak Spring, by this new road, will be 32 miles. The graduation may be computed as follows:

From Dowson's to Brister's	4½ m. at 2°;	4 m. at 3°;	3½ m. at 4°	- 12 miles.
From Brister's to Post Oak Spring	8½ do	9 do	2½ do	- 20
For the whole distance - -	13 m.	13 m.	6 m.	- 32 miles.

B. At nine miles from Sparta the road forks, leading, on the left, through Ross Road; and, on the right, through Rock-Island Bridge-Road. These two roads meet again ten miles farther. The former is considered as being more hilly than the other, which is travelled by the mail stage. The distance is the same by either road.

C. From Huntsville to Russelville there are two roads: one by Florence, the other by Brown's Ferry. They compare, as to distance, as follows:

From Huntsville to Athens	25 miles	From Huntsville to Brown's Ferry	33 miles
From Athens to Florence	50	From Brown's Ferry to Courtland	12
From Florence to Tuscumbia	5	From Courtland to Russelville	28
From Tuscumbia to Russelville	18		
From Huntsville to Russelville	98 miles	From Huntsville to Russelville	73 miles

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The road by Brown's Ferry, being, therefore, the shortest, has been adopted in the itinerary table. With regard to the other, it has been examined on its section from Lawrence to Russelville, and as the continuation of the road examined through Kentucky and Tennessee, and terminating at Florence. This latter road would, therefore, strike, at Russelville, the Western route, now under consideration.

D. At Holloway's the crossing of the Cumberland Mountains terminates. Before reaching Holloway, the road crosses the Bull Mountain Branch, main and eastern head of the Tombeckbee. The actual road crosses the Buttahache above Terrell's mill, fifteen miles from Holloway's ; but, by crossing the stream below Terrell's mill, a bridge of but fifty yards would be sufficient, and the road would become shortened by about one mile.

E. Columbus lies on the left bank of the Tombeckbee. Not only a causeway, of two miles in length, will be necessary on the right of the Tombeckbee and across its bottom, but also a levee thrown up at least fifteen inches above the natural ground will become indispensable, on a distance of ten miles, from the Tombeckbee's bottom to Peathland's.

F. From Columbus to Doak's, the distance measured is ninety-eight miles. The road has been made by the United States. The Choctaw line passes at about two hundred yards east of Doak's.

G. From Baton Rouge to New Orleans, the road follows the left side of the Mississippi, and is called the Levee road. From Baton Rouge to Nelson's, a shorter distance is obtained, by leaving the Levee road, and taking the road called Highland road. Two other deviations from the Levee road have been contemplated : a cut-off of two miles, commencing at three miles from Nelson's, and shortening the distance by about ten miles ; it is practicable, and an appropriation has been made by the State of Louisiana to improve it : a cut-off of four miles at Hampton's plantation, which would shorten the actual road by about nine miles ; it is not practicable now for carriages ; the expense necessary to make it convenient, without being an obstacle to the draining of the plantations, would be great, on account both of the elevation to which the causeway should be raised above the low natural ground, and of the brick arches, which would become indispensable to afford passage to the filtrations from the Mississippi.

BERNARD, *Brig. Gen.*
Member of the Board of Internal Improvement.
WILLIAM TELL POUSSIN.
Capt. Top. Engineers, Assistant to the Board.

WASHINGTON CITY, *January 26th*, 1828.

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